VAKI

Biomest Daily Software

User manual

(English)

Software version 3.11 - March 2009

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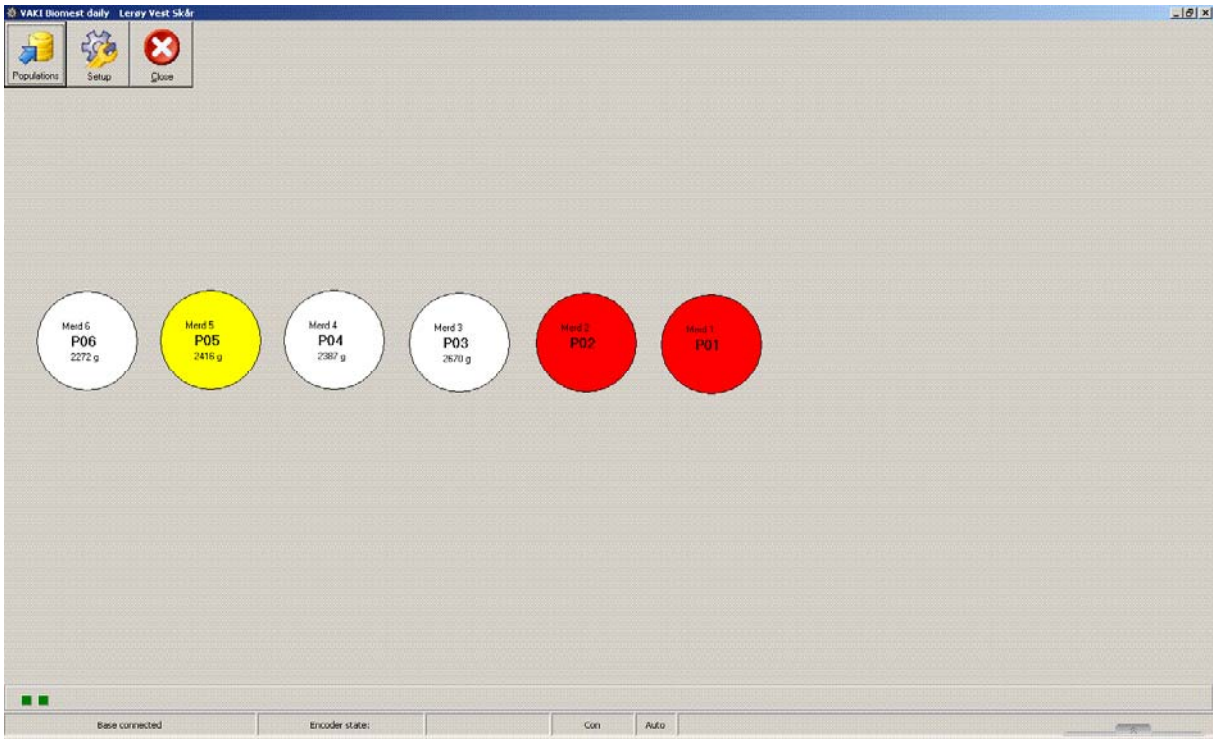
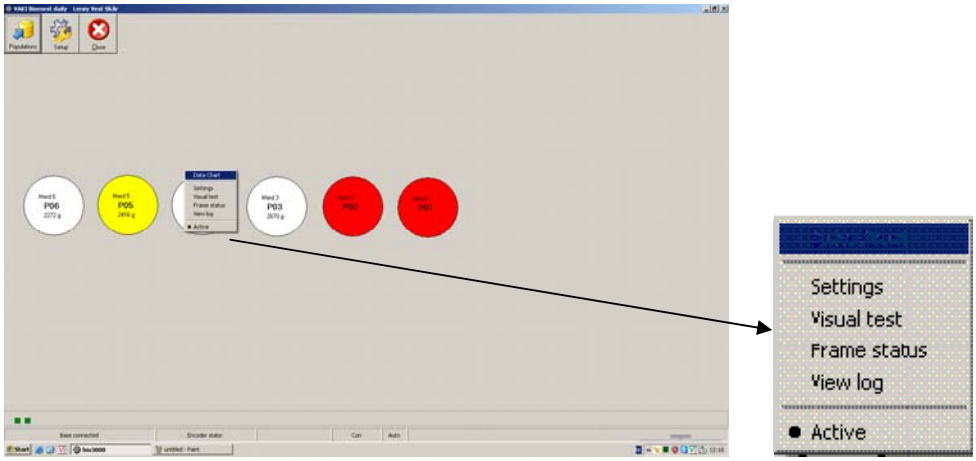
1. USING THE SOFTWARE

The main screen shows the overview of the farm. All the sites are shown with cage name and population name. If the sample is representative, then the average weight is also shown for each cage. Three colors are used as status indicators,

- white means there is connection to the frame and the sample is representative
- yellow means there is connection to the frame but the sample is too small to be representative or the frame might have to be cleaned
- red means there is no connection between the frame/connection box and the computer

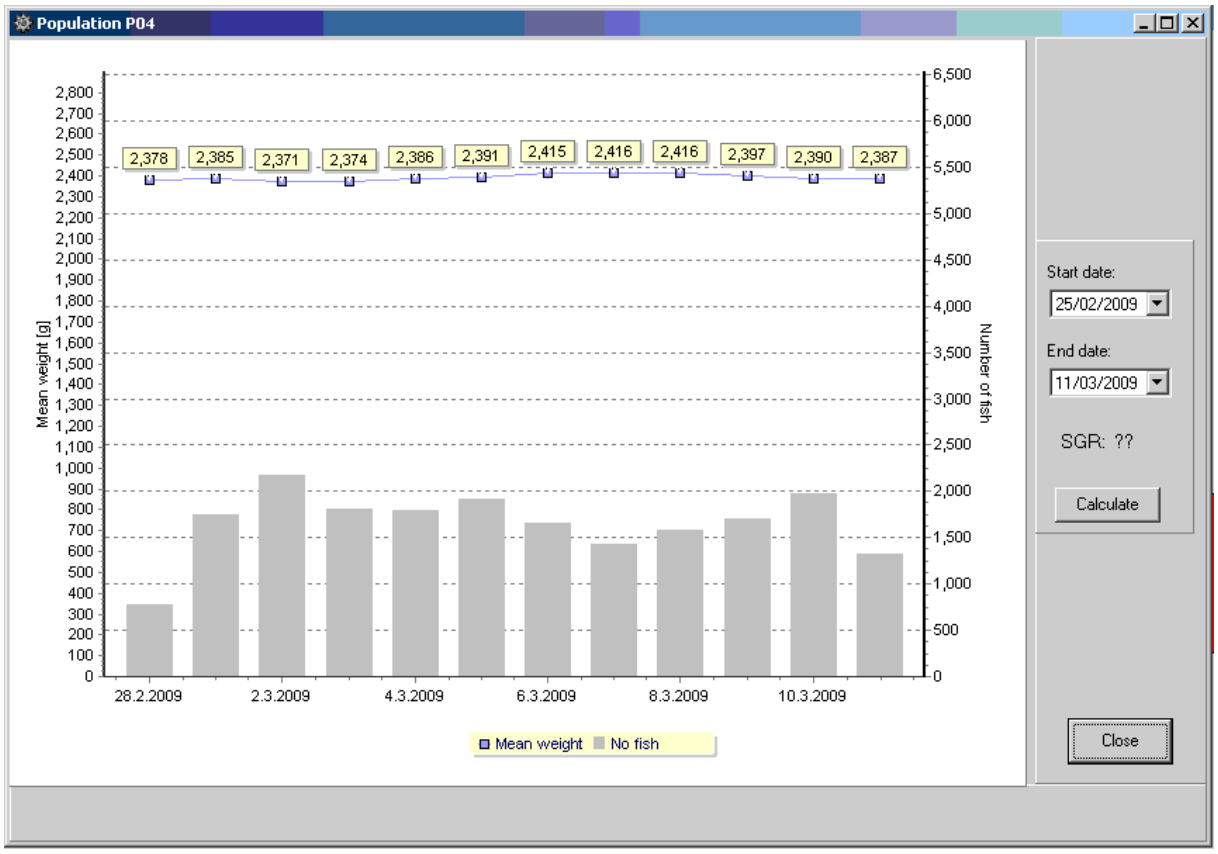


By right clicking one of the cages, the following box appears.

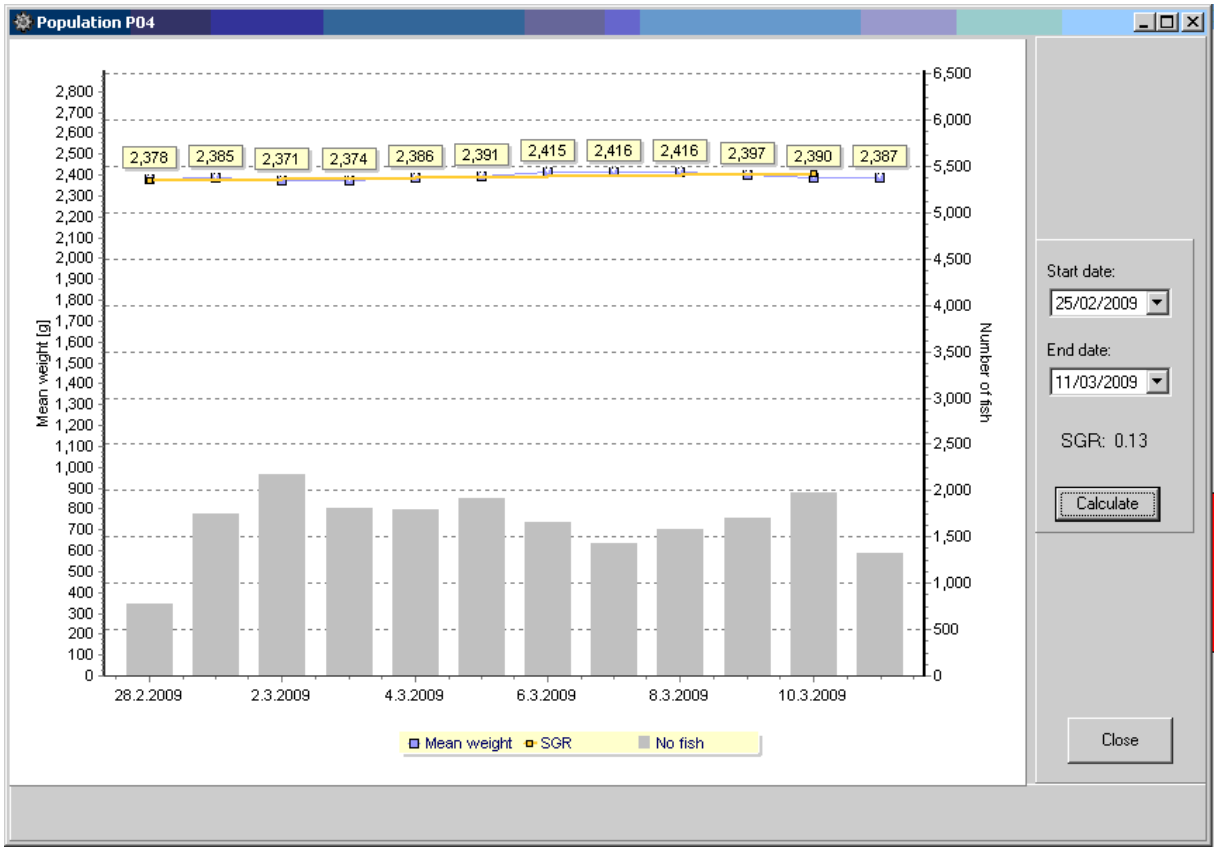


Data chart

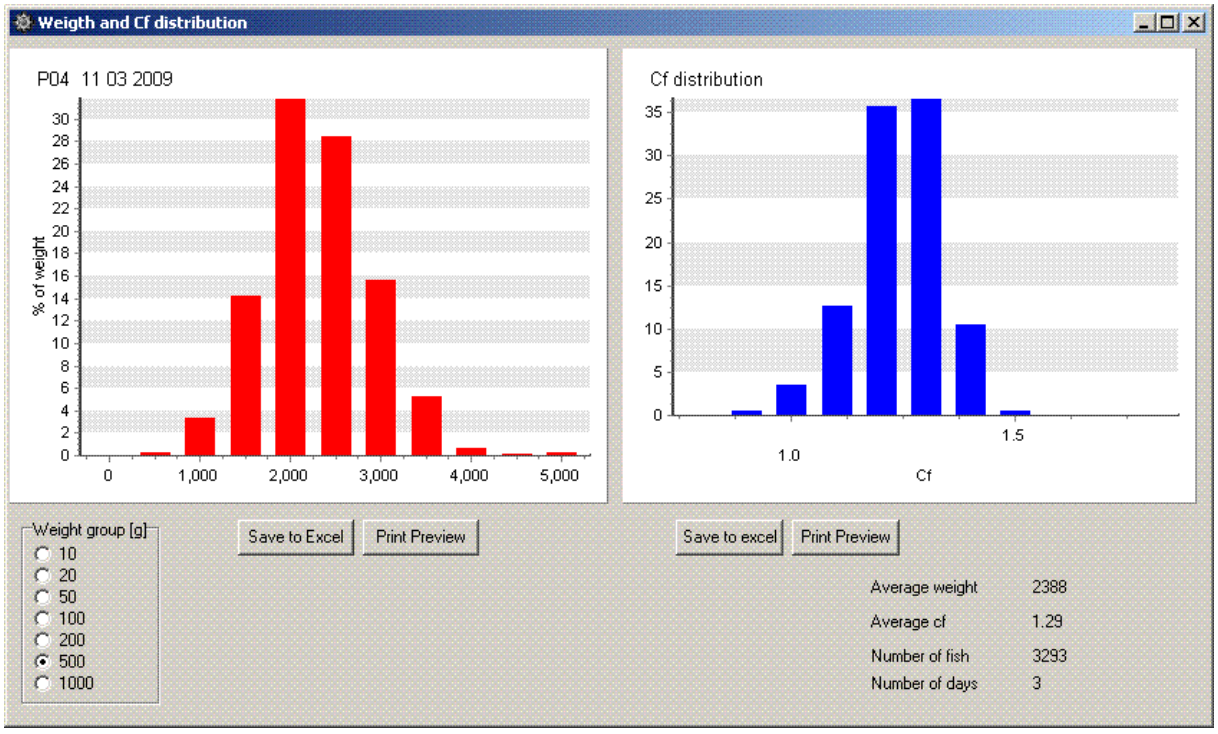
Data chart shows the daily measurements for a selected period, the bars indicate the number of fish measured each day, and the points show the average weight for every day.



By pressing the Calculate button the SGR is calculated for the chosen period.

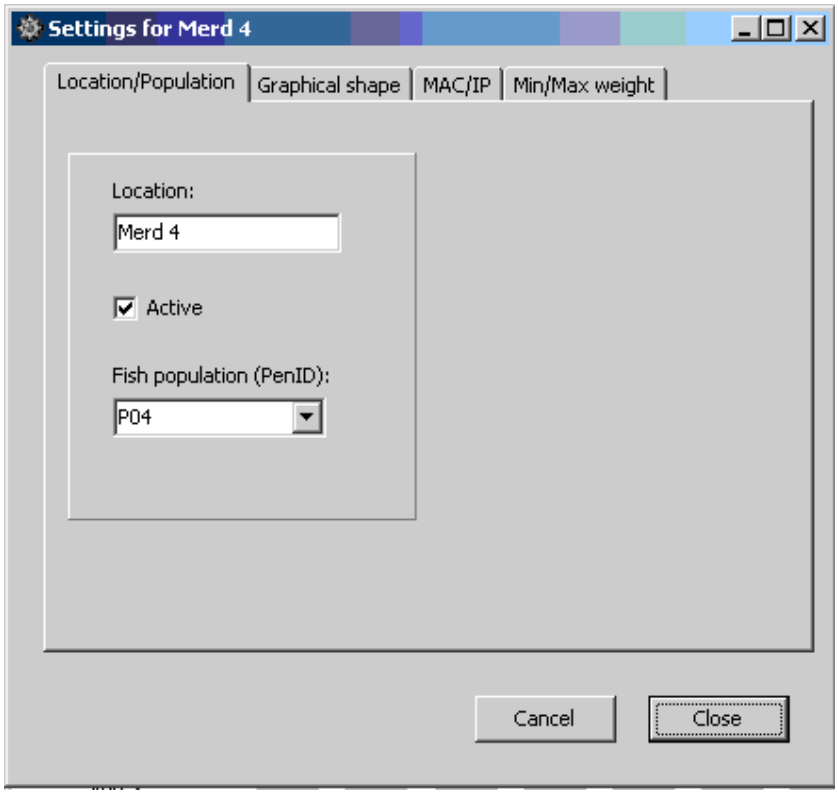


It is important to bear in mind that the number of fish in every day's sample has to be of certain size to be representative for the whole population in the cage. By pressing one of the measuring points, size distribution and condition factor distribution are shown in two graphs. It is possible to save the single measurements into excel for further analysis and to print out the graphs directly.

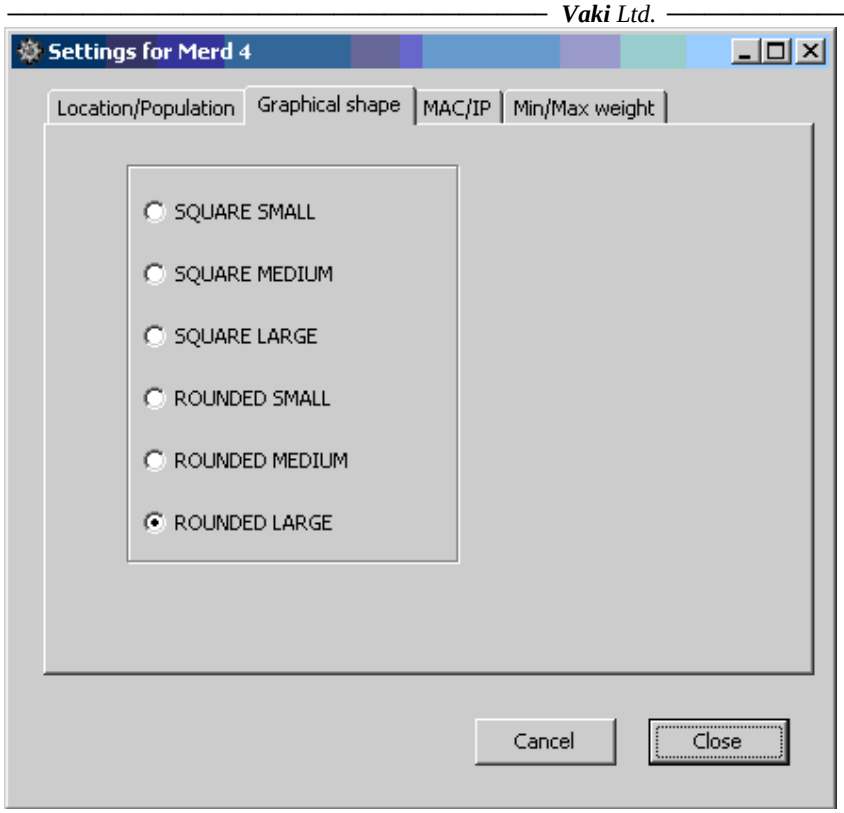


Settings

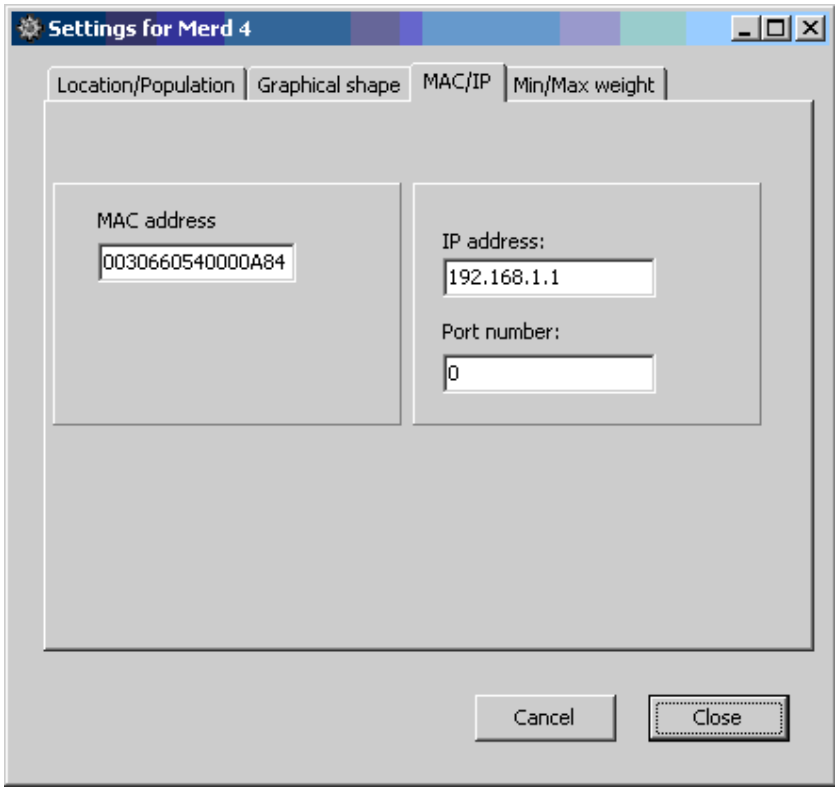
It is possible to name the location and the population differently. The location is usually the cage name and where the frame is permanently placed. The population can change when graded or split or partly harvested, so then it is possible to create a new population in the same pen. Tick the Active box if the population is being measured.



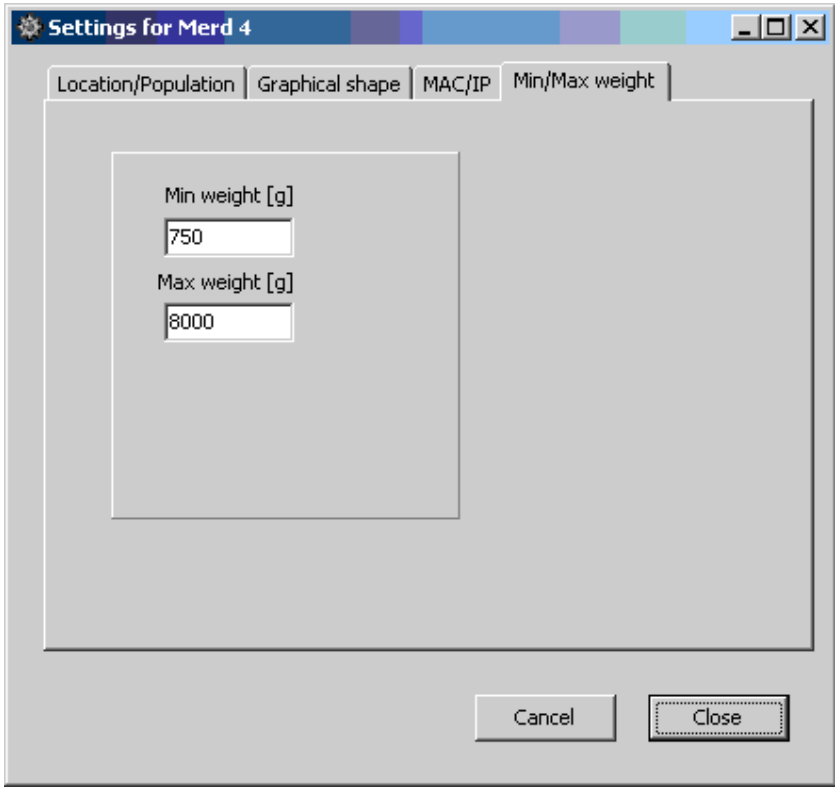
The shape and size of the cages can be adjusted. Choose between round or square cages of different sizes, all according to the layout of your site.



The MAC addresses are specific for each connection box and are set in the radio network (see below). The IP adress is for internal connection.

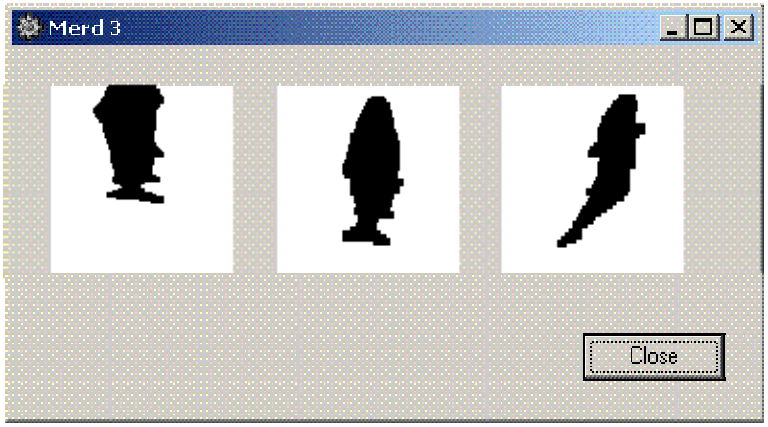


Minimum and maximum weight exclude all fish outside these parameters from the measurements.



Visual test

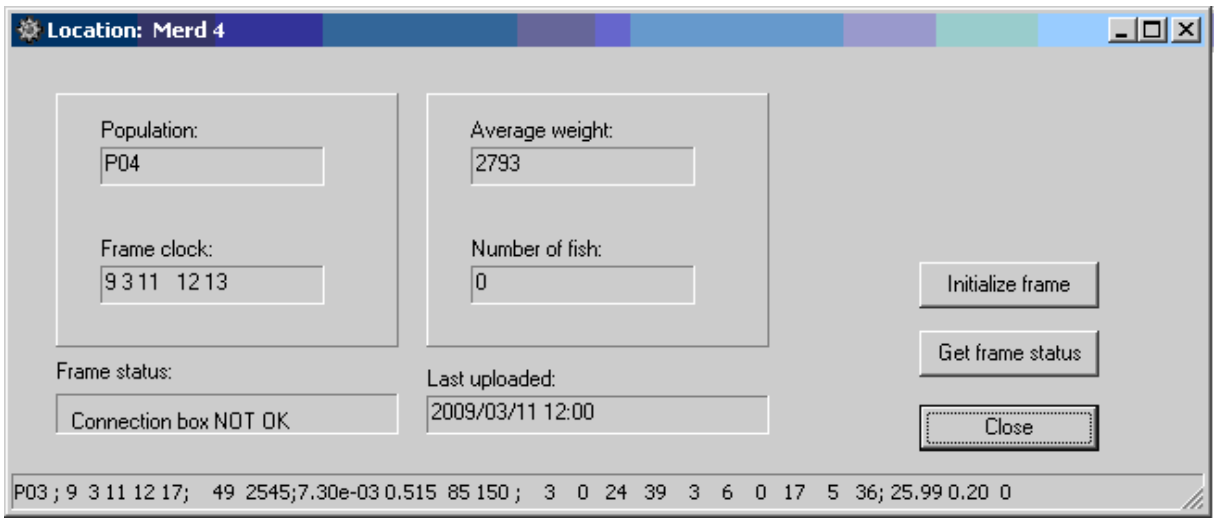
A visual test is used for checking if all the diodes in the frame are operative and ok. If some of the diodes are not working, then a part of the white boxes below become black. If everyting is ok then all three boxes are supposed to be white. The visual test below shows the same fish swimming through the frame, two images seen from the side and one from the top.



Frame status

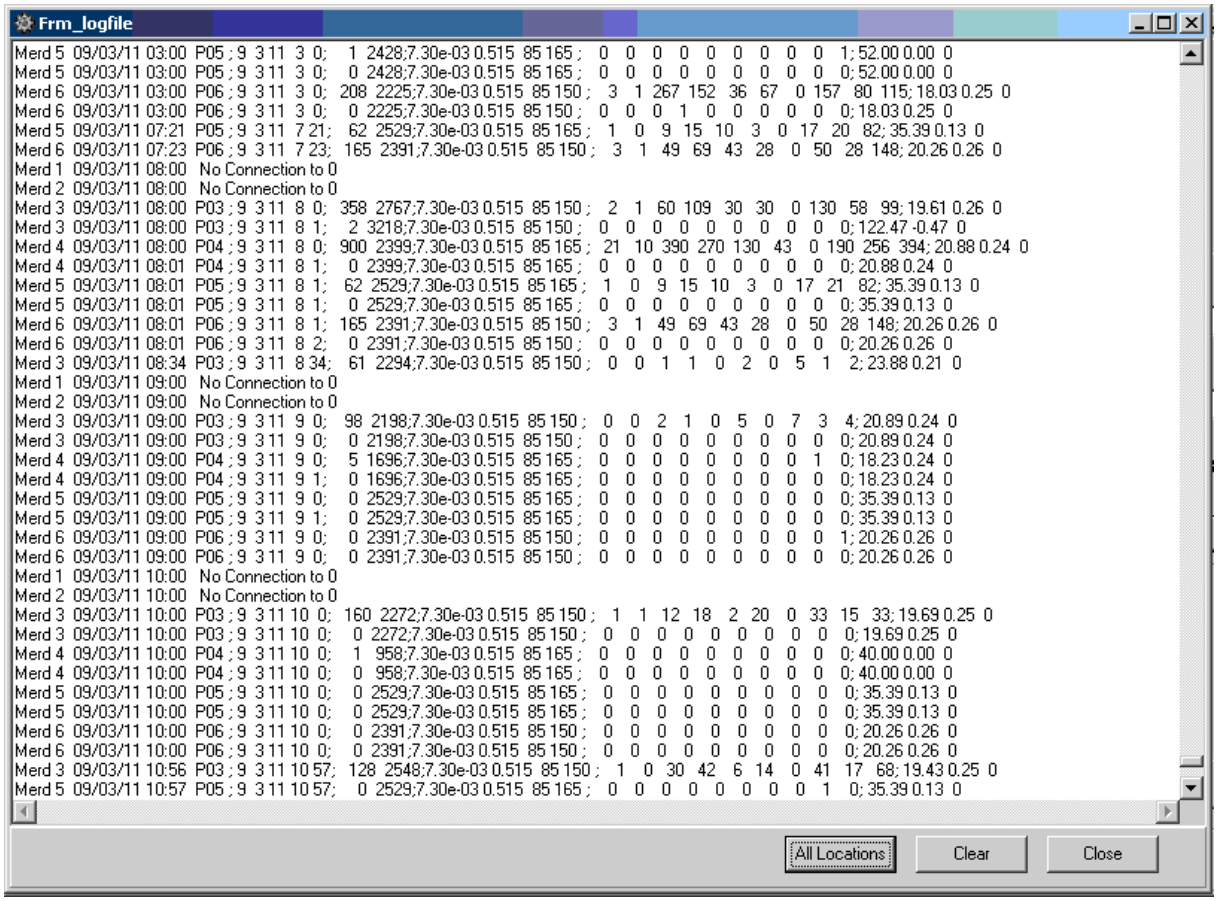
The frame status is shown in the box below. The population number that is linked to the frame and the date and time are shown in the first square. Frame status indicates if the connection box out on the cage is communicating with the computer. If everything is ok then it says: “Frame ok” if not then “Connection box not ok” as shown below. Press the “Initialize frame” button to reset the frame

and set the clock in the frame to PC clock. Average weight and number of fish refer to the data that was uploaded the last hour. After each upload (See Upload interval under setup) the frame is reset.



View log

View log is used to control how the data are being sent from the connection box to the computer.

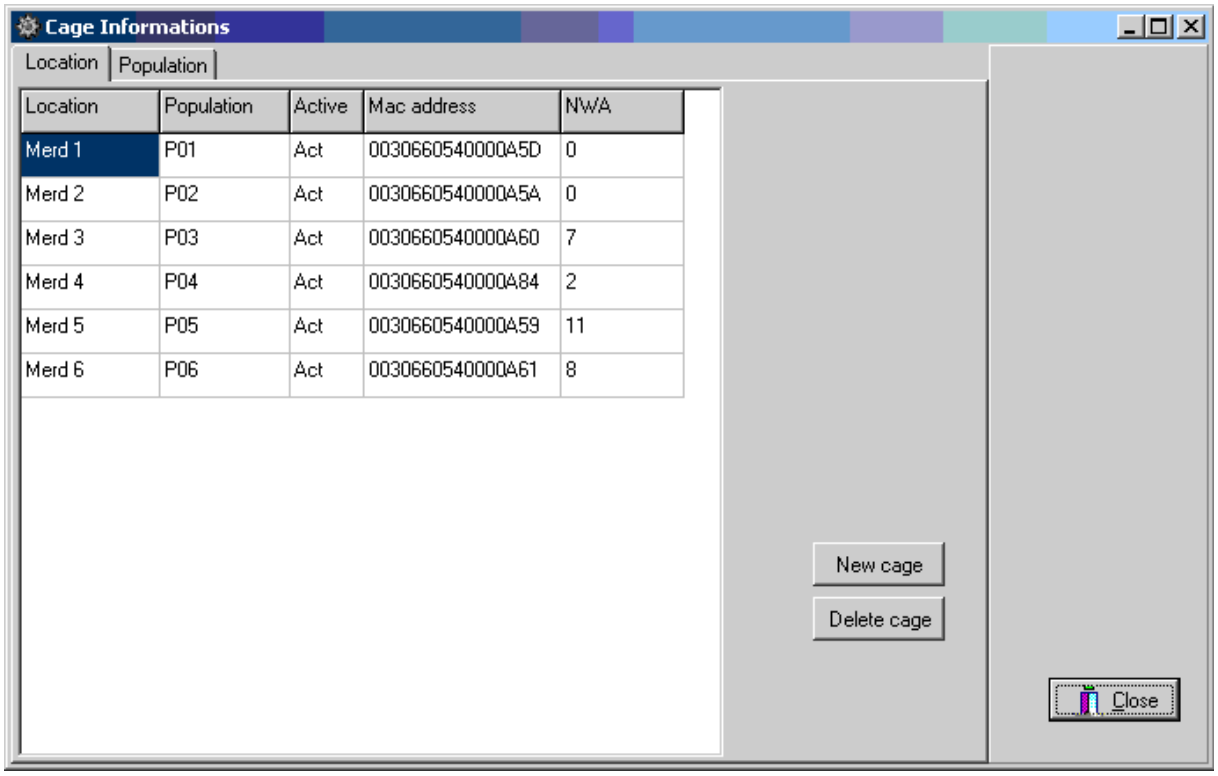


Active

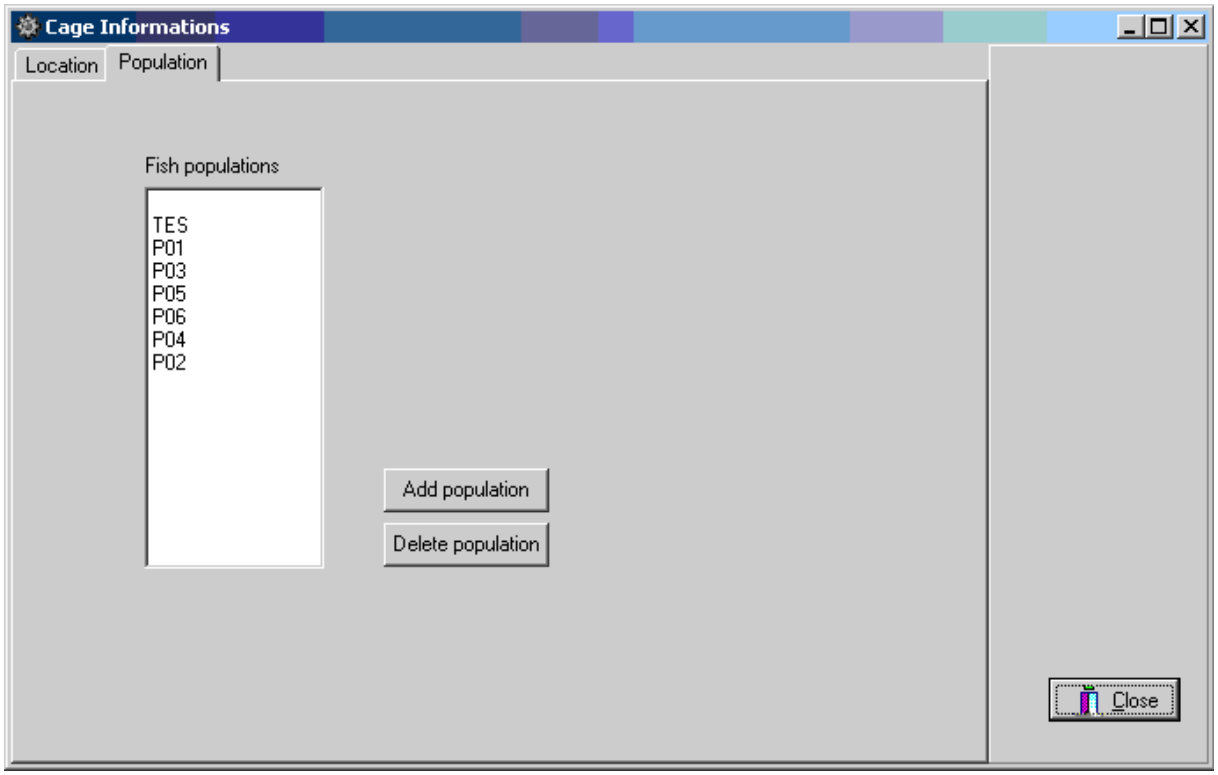
Used to activate the frame.

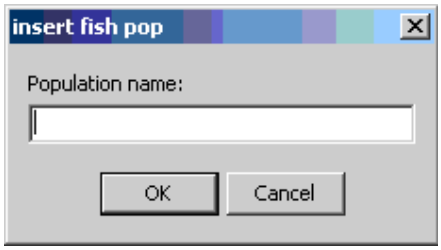
Populations

Use the Population button to register new populations and new cages. It is important that the Mac address is correct for every connection box sending data from each frame. Here you can administer the cages, create new ones and link the right population to every cage.



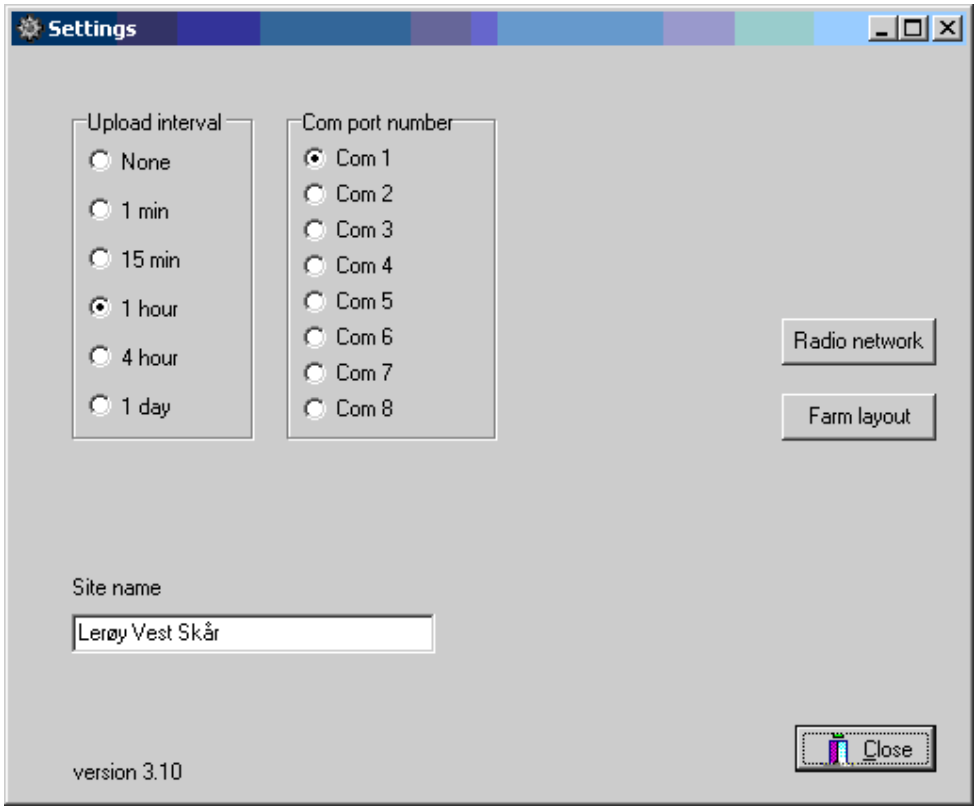
Add new population when needed, e.g. when graded, split or harvested from one population.



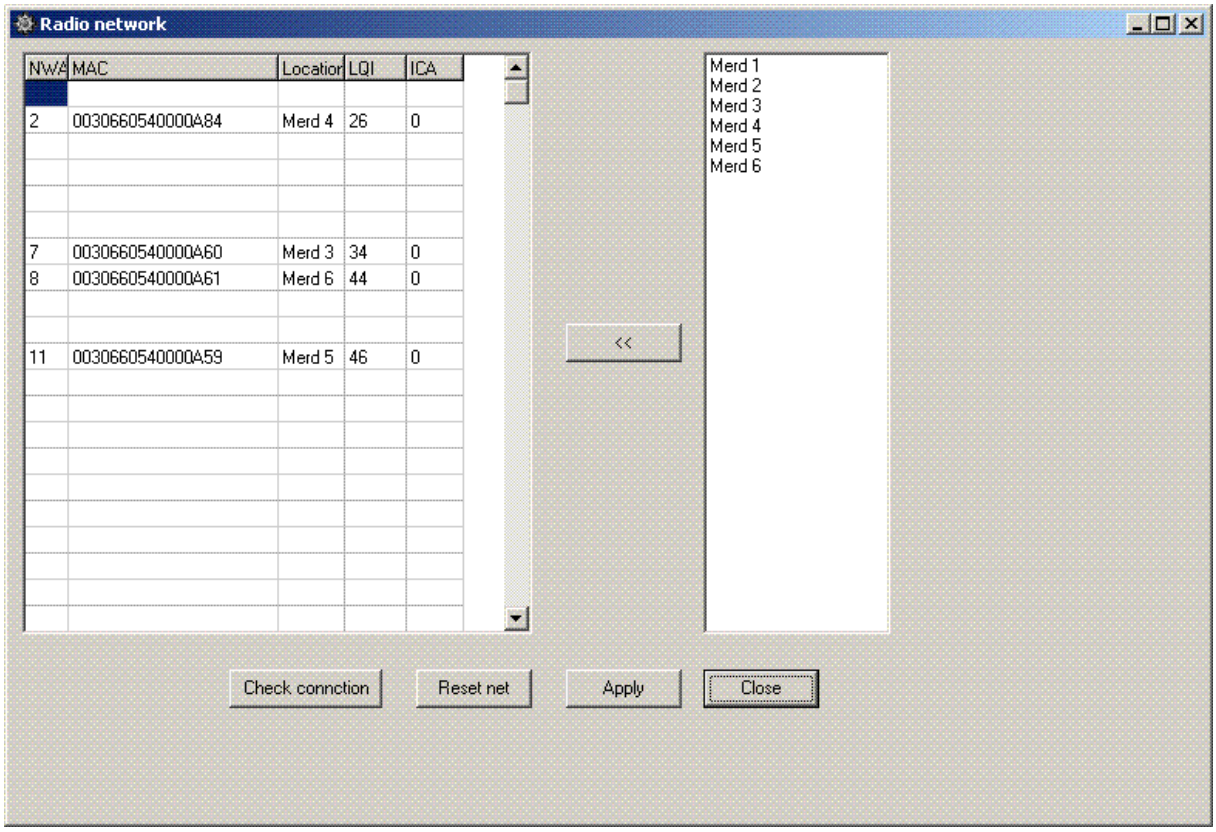


Setup

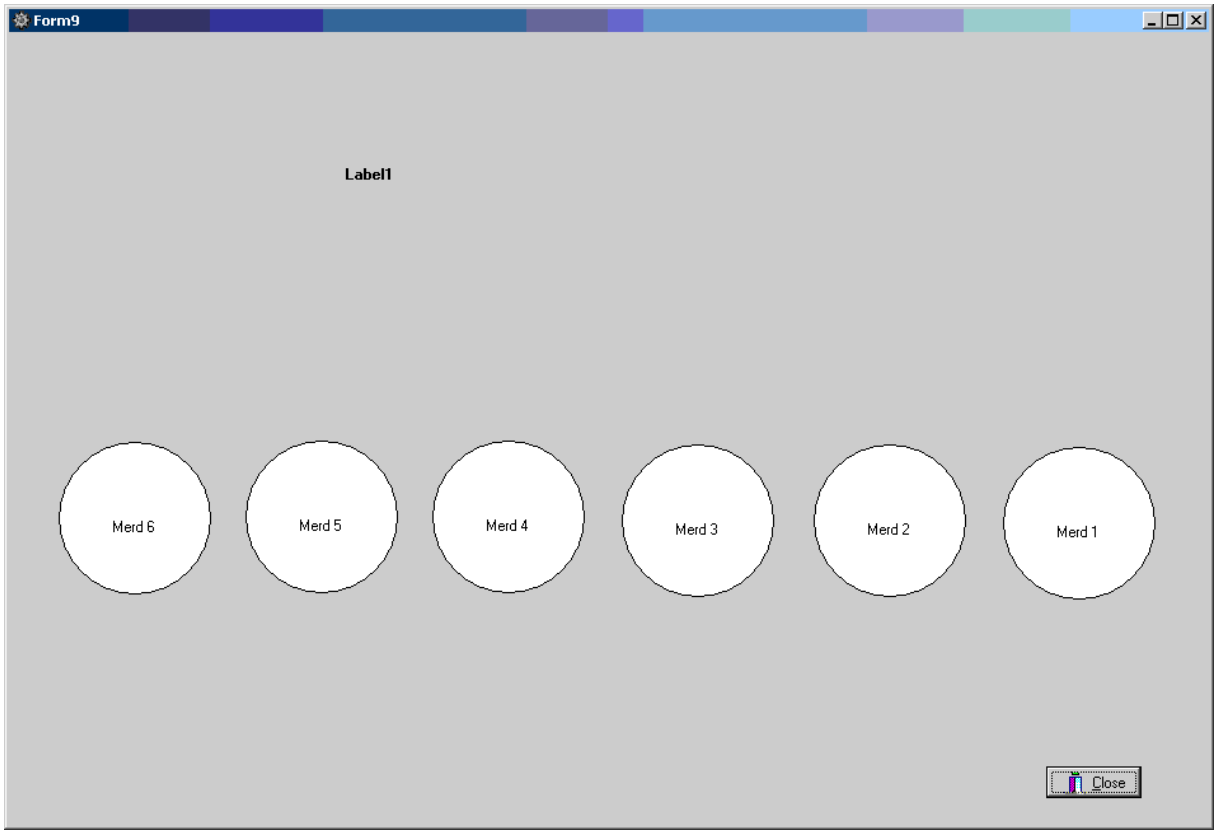
It is possible to set the upload interval for the frames. The com port is also set here.



Radio network is used to connect each connection box to the right cage number in the software. By pressing ”Reset net” all the connection boxes send their Mac addresses to the computer, then it is possible to link each cage to the right number. By pressing the ”Check connection” button, the LQI (Link Quality Index) is refreshed. The LQI can be between 0 and 127 and shows the strength of the signal from the connection box. The higher the number, the stronger the signal. If it gets below 20 then the signal is getting to weak. ICA should be 0, if 1 then there is not connection to the frame.



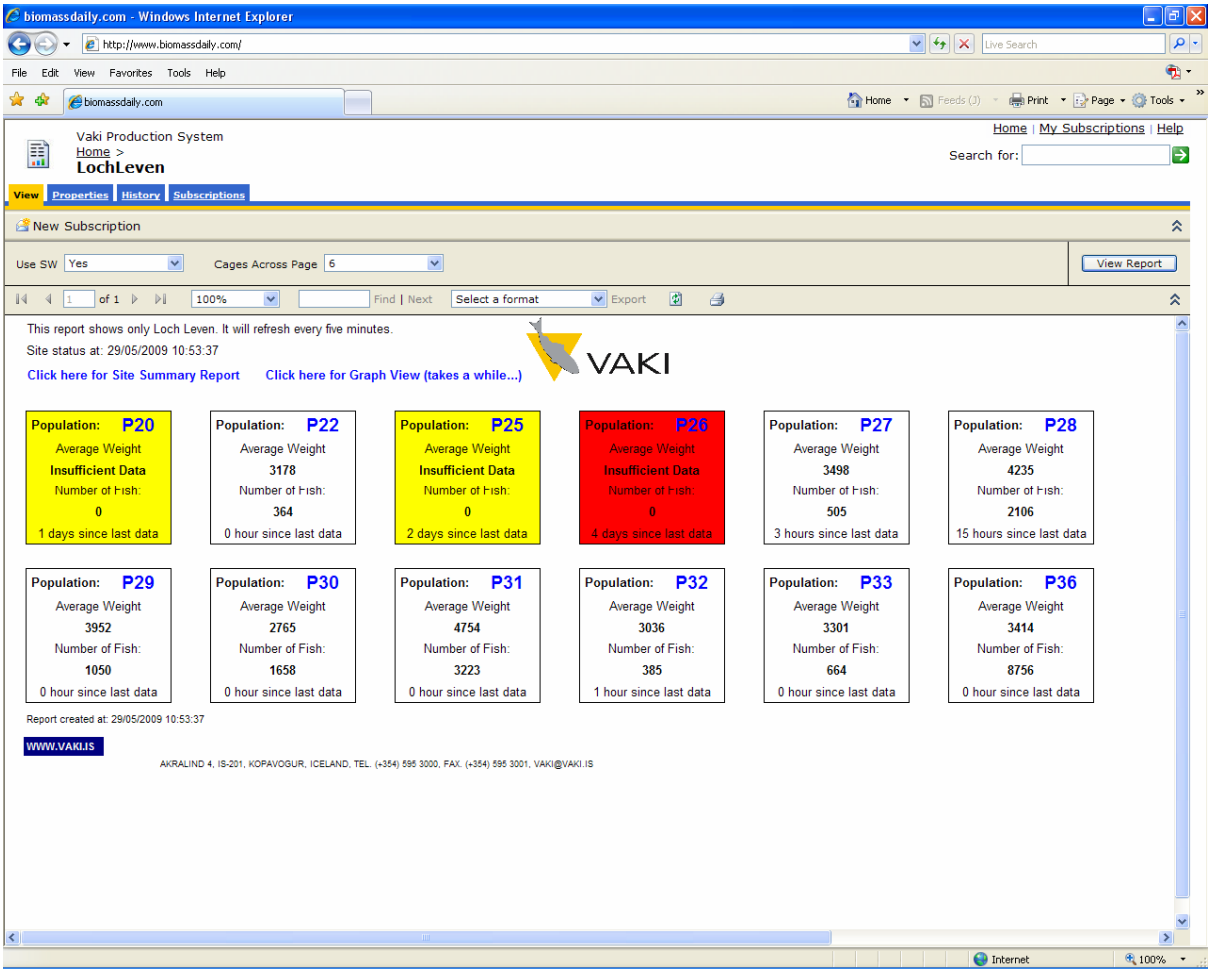
The farm layout can be changed by dragging and dropping the cages.



2. WEB-BASED REPORTING PROGRAM

The overview of the farm shows all the cages and uses three colors for reporting the status.

- White means everything is ok
- Yellow indicates that the sample is to small to be representative for the population
- Red shows that there is no data being sent to the web from that cage


biomassdaily.com - Windows Internet Explorer
http://www.biomassdaily.com/
Vaki Production System
Home >
LochLeven
Home | My Subscriptions | Help
Search for:
View
Properties
History
Subscriptions
New Subscription
Use SW Yes
Cages Across Page 6
View Report
This report shows only Loch Leven. It will refresh every five minutes.
Site status at: 29/05/2009 10:53:37
Click here for Site Summary Report
Click here for Graph View (takes a while...)
VAKI
Population: P20 Average Weight Insufficient Data Number of Fish: 0 1 days since last data
Population: P22 Average Weight 3178 Number of Fish: 364 0 hour since last data
Population: P25 Average Weight Insufficient Data Number of Fish: 0 2 days since last data
Population: P26 Average Weight Insufficient Data Number of Fish: 0 4 days since last data
Population: P27 Average Weight 3498 Number of Fish: 505 3 hours since last data
Population: P28 Average Weight 4235 Number of Fish: 2106 15 hours since last data
Population: P29 Average Weight 3952 Number of Fish: 1050 0 hour since last data
Population: P30 Average Weight 2765 Number of Fish: 1658 0 hour since last data
Population: P31 Average Weight 4754 Number of Fish: 3223 0 hour since last data
Population: P32 Average Weight 3036 Number of Fish: 385 1 hour since last data
Population: P33 Average Weight 3301 Number of Fish: 664 0 hour since last data
Population: P36 Average Weight 3414 Number of Fish: 8756 0 hour since last data
Report created at: 29/05/2009 10:53:37
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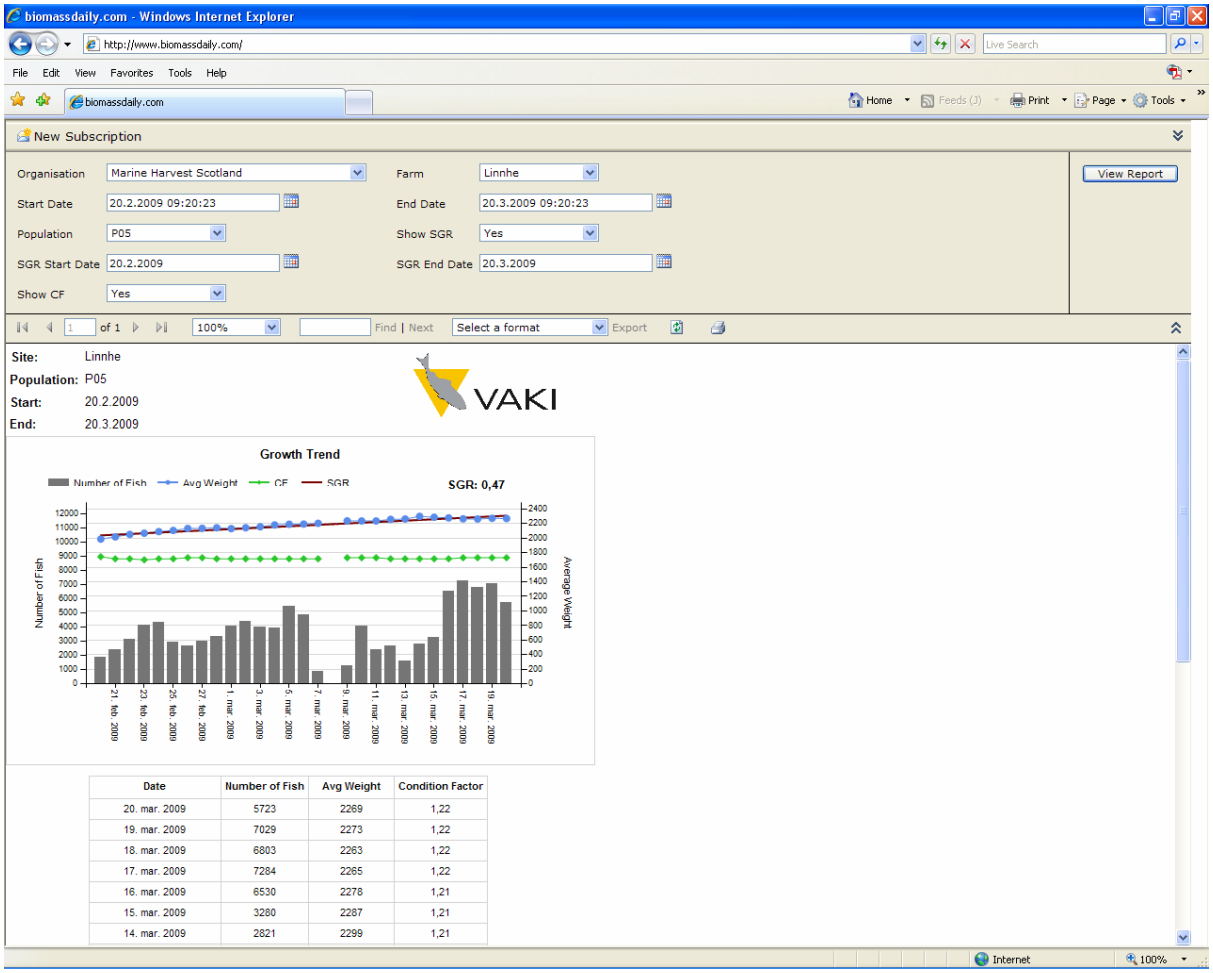
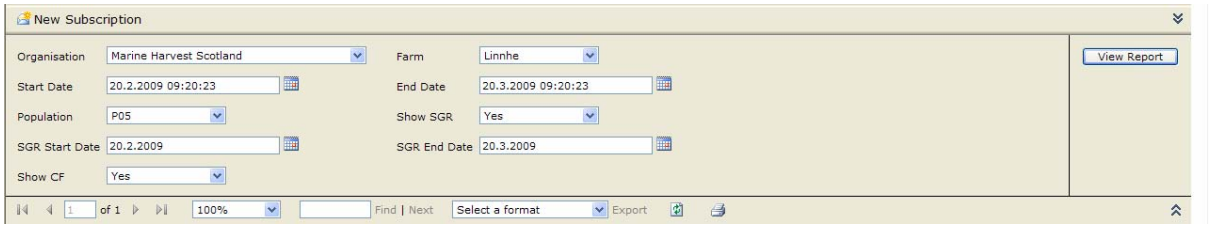
The Graph View shows the growth trend for all the cages for a chosen period of time. It may take some time to create that overview, but it shows the whole site on one screen.

Select one cage with the mouse and then the following graph is shown for that cage.



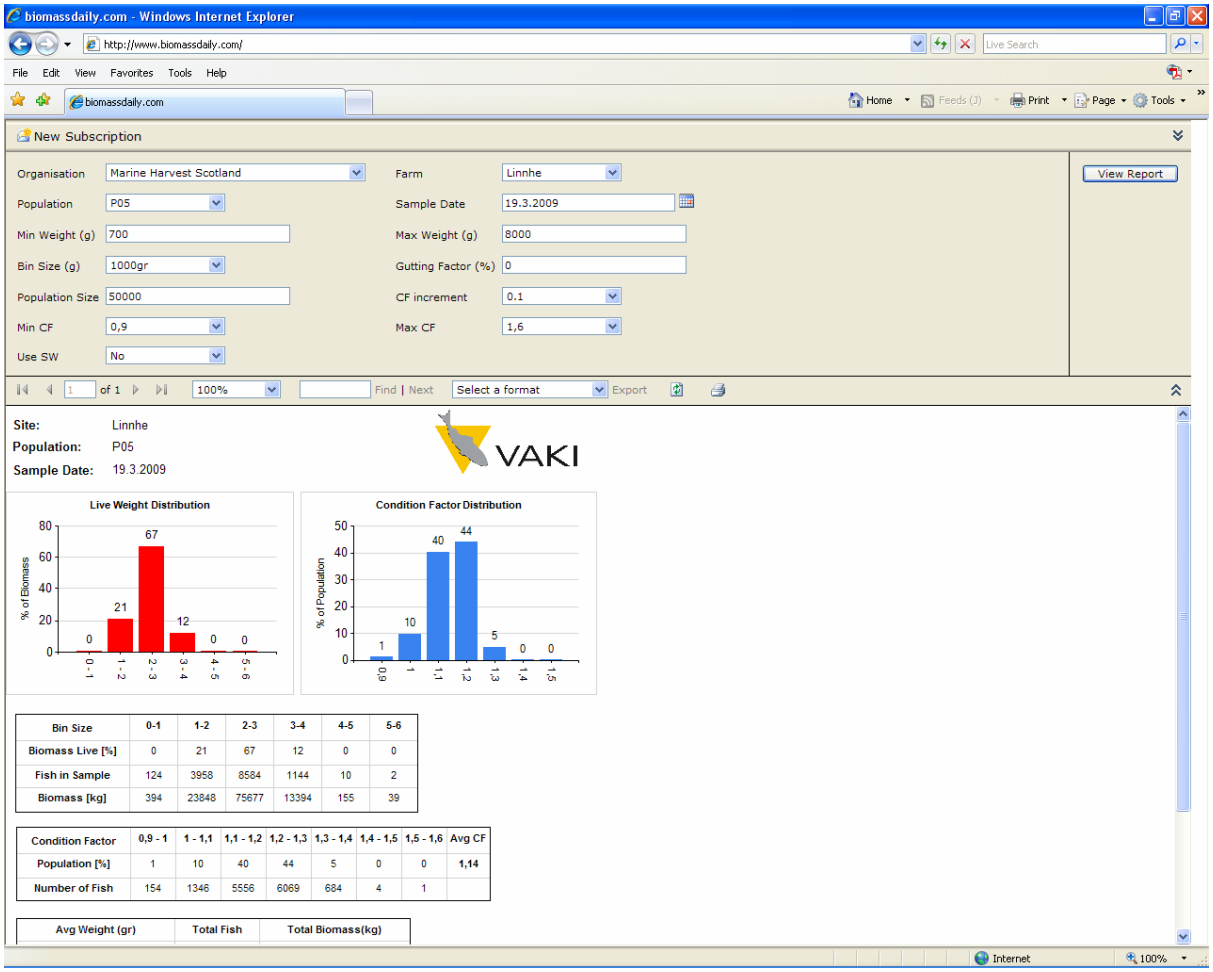
The bars show number of fish measured each day and every point shows the average weight for that day. The points are blue if the number of fish in that sample is bigger than 200 fish, if less then the point is grey. The green line is the condition factor, the same applies with that, it is green if the sample is bigger than 200 fish, grey if fewer. In the table below the graph, the average weight and condition factor is shown for every day. The SGR can be shown as well, it is the best line through all the blue points for the chosen period. SGR is also shown in number above the chart.



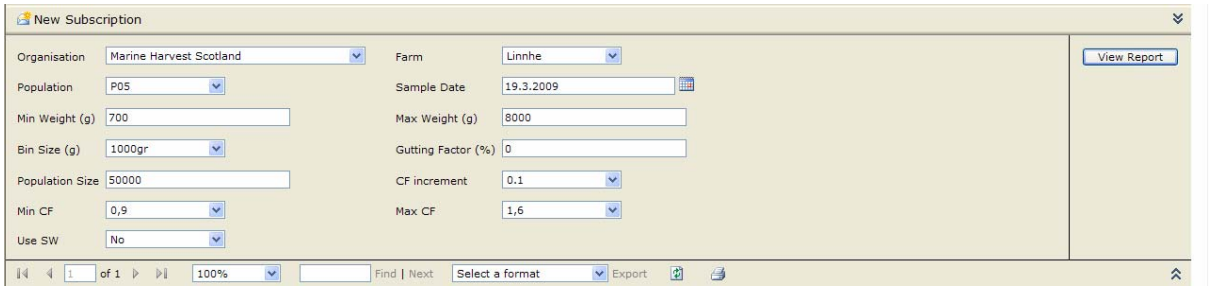
In the Control Bar it is possible to choose between farms if more than one farm has Biomass Daily system. It is also possible to select the time period one wants to look at. By selecting another population and pressing View Report to the right, a trend graph for the new population is shown. SGR and condition factor (CF) can be displayed in the chart by selecting them in the control bar. The arrows at the left corner of the Control Bar are used to look at other pages of the table below the graph. It is also possible to zoom in and search for numbers or text in the report. The Export function can be used to create reports in different formats. Select the desired format and hit Export. Refresh button and direct link to printer are also on the Control Bar. Remember to use View Report after selecting new date or population.

Under the bar ”New Subscription” it is possible to subscribe to autmatic reports that are e-mailed to selected e-mail addresses.

By clicking one of the measuring points on the growth trend graph, it is possible to see the size distribution and the condition factor distribution as shown below.


biomassdaily.com - Windows Internet Explorer
New Subscription
Organisation Marine Harvest Scotland
Farm Linnhe
Population P05
Sample Date 19.3.2009
Min Weight (g) 700
Max Weight (g) 8000
Bin Size (g) 1000gr
Gutting Factor (%) 0
Population Size 50000
CF increment 0.1
Min CF 0,9
Max CF 1,6
Use SW No
View Report
Site: Linnhe
Population: P05
Sample Date: 19.3.2009
VAKI
Live Weight Distribution
% of Biomass
Condition Factor Distribution
% of Population
Bin Size 0-1 1-2 2-3 3-4 4-5 5-6
Biomass Live [%] 0 21 67 12 0 0
Fish in Sample 124 3958 8584 1144 10 2
Biomass [kg] 394 23848 75677 13394 155 39
Condition Factor 0,9 - 1 1 - 1,1 1,1 - 1,2 1,2 - 1,3 1,3 - 1,4 1,4 - 1,5 1,5 - 1,6 Avg CF
Population [%] 1 10 40 44 5 0 0 1,14
Number of Fish 154 1346 5556 6069 684 4 1
Avg Weight (gr) Total Fish Total Biomass(kg)

The size distribution and cf distribution are displayed in a table and graphically. The percentage in each group is shown above each bar.

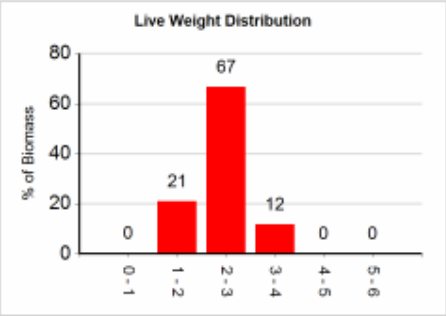


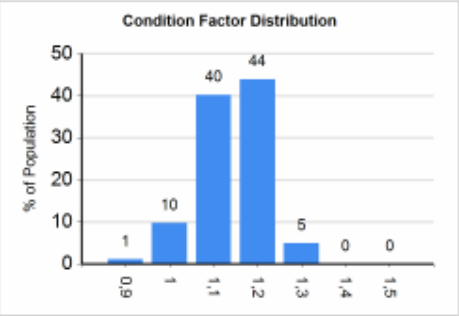
Min/Max Weight and Min/Max CF are used to exclude all fish outside those boundaries. Use Min Weight actively if there are small pollocks or other fish inside the pen that will disturb the measurement. Select the desired bin size to set the x-axis. Gutting factor can be set and then the graph changes according to the factor and gutted weight is shown in the table. Put in the population size and the total biomass in each size group is calculated. Remember to hit the View Report button

after your selections. SW is the starved weight, that needs to be activated specially by Vaki IT people.

Below is a typical report created by using the Export button.

Site: Linnhe
Population: P05
Sample Date: 19.3.2009





Bin Size	0-1	1-2	2-3	3-4	4-5	5-6
Biomass Live [%]	0	21	67	12	0	0
Fish in Sample	124	3958	8584	1144	10	2
Biomass [kg]	394	23848	75677	13394	155	39

Condition Factor	0,9 - 1	1 - 1,1	1,1 - 1,2	1,2 - 1,3	1,3 - 1,4	1,4 - 1,5	1,5 - 1,6	Avg CF
Population [%]	1	10	40	44	5	0	0	1,14
Number of Fish	154	1346	5556	6069	684	4	1	

Avg Weight (gr)	Total Fish	Total Biomass(kg)
2269	13816	113.450

Site:	Linnhe	**Population:**	P05	**Sample Date:**	19.3.2009
Gutting Factor:	0	**Population Size:**	50000	**Created at:**	29.5.2009 09:53:15
Min Weight:	700	**Max Weight:**	6000	**Bin Size:**	1000
Min CF:	0,9	**Max CF:**	1,6	**CF Increment:**	0,1

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